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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,145	11/21/2001	Kazuhiko Nimura	P21429	9446

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EXAMINER

MAYO III, WILLIAM H

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/989,145

Examiner

William H. Mayo III

Applicant(s)

NIMURA, KAZUHIKO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1 ☒ Certified copies of the priority documents have been received.  
2 ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

## Attachment(s)

- 1) ☐ Notice of References cited (PTO-1449)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-648)  
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_  
4) ☐ Interview Summary (PTO-414) (only if interview)  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-5, 7-13, 15, and 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al (Pat Num 5,133,677, herein referred to as Sato). Sato discloses a shielded connector assembly (Figs 1-11) for a female shielded terminal connectable to a shielded cable (Col 1, lines 5-10). Specifically, with respect to claim 1, Sato discloses an assembly (Figs 1-11) comprising an internal terminal (5) connectable to an inner conductor (24) of a shielded electrical wire (2), wherein the internal terminal (5) includes at least one elastic connecting piece (14) to contact a corresponding male terminal (C), and a dielectric (4) mounted on an outer periphery of the internal terminal (5) to insulate the internal terminal (5) from an external terminal (1) connected to an outer conductor (22) of the shielded electrical wire (2). With respect to claim 4, Sato discloses that the dielectric (4) includes a hole (4a) that extends from a forward end (left of 4a) to a rearward end (right of 4a) of the dielectric (4), wherein the internal terminal (5) being positioned inside the hole (4a, Fig 11). With respect to claim 5, Sato discloses

discloses that the assembly (Figs 1-11) further comprises an external terminal (1) covering the dielectric (4) and the internal terminal (5) therein, wherein the external terminal (1) includes holding parts (6) positioned at the front portion (left side) of the external terminal (1) that receive a front end (left end) of the dielectric (4). With respect to claim 8, Sato discloses that the dielectric (4) is blocked shaped (Fig 1) and the holding parts (6) form a square for receiving the dielectric (4). With respect to claim 9, Sato discloses that the external terminal (1) further includes a covering wall part (not shown) positioned rearward of holding parts (6a), wherein the covering wall (not shown) includes an upper open face (at 3) to receive a rear portion of the internal terminal (5). With respect to claim 10, Sato discloses that the external terminal (1) includes a barrel portion (3) positioned rearward of the covering wall part (not shown) wherein the barrel portion (3) includes an open upper face (at 6a) to receive a net braid shield (22) of the shielded electric wire (2) and includes bendable portions (12 & 13) to cover the braided shield (22) of the shielded electrical cable (50, Fig 3). With respect to claim 11, Sato discloses that the external terminal (1) further includes a lance (6) on a lower face of the external terminal (1) and extending toward a front portion of the external terminal (1) and a dielectric (4) further including a hooking groove (Fig 4) on a lower face of the dielectric (4) and extending from a rearward to a forward direction of the dielectric (4) to receive the lance (6) and secure the dielectric (4) and the external terminal (1) together (Fig 4). With respect to claim 12, Sato discloses a method of assembling a female plug to a shielded electric wire (50) comprising providing an internal terminal (5) connectable to an

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includes at least one elastic connecting piece (4) to contact a corresponding male terminal (1), mounting a dielectric (4) on an outer periphery of the internal terminal (5), after mounting the dielectric (4) on the internal terminal (5), connecting the inner conductor (24) of the shielded wire (2) to the internal terminal (5), providing an external terminal (1) on the dielectric (4) and the internal terminal (5), after mounting the external terminal (1) on the dielectric (4) and the internal terminal (5), connecting the external terminal (1) to the outer conductor (22) of the shielded electrical cable (2). With respect to claim 13, Sato discloses a method wherein the mounting of the dielectric (4) includes covering the at least one connecting piece (14) with the dielectric (4) so that damage to the at least one elastic connecting piece (14) is prevented (Fig 11). With respect to claim 15, Sato discloses a method wherein the dielectric (4) includes a hole (4a) that extends from a forward end (left of 4a) to a rearward end (right of 4a) of the dielectric (4), further comprising positioning the internal terminal (5) inside the hole (4a, Fig 1). With respect to claim 17, Sato discloses a method wherein the assembly (2) further comprises covering the dielectric (4) and the internal terminal (5) therein with an external terminal (1), wherein the external terminal (1) includes holding parts (6) positioned at the front portion (left side) of the external terminal (1) that receive a front end (left end) of the dielectric (4a, Fig 11). With respect to claim 18, Sato discloses a method wherein the dielectric (4) is blocked shaped (Fig 1) and the holding parts (6) form a square for receiving the dielectric (4, Fig 1), further comprising receiving the dielectric (4) with the holding parts (6) so that a forward end of the dielectric (4) abuts

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wherein the external terminal (1) further includes a covering wall part (outside wall portions of 12) positioned rearward of holding parts (6), wherein the covering wall (12) includes an upper open face (Fig 2) to receive a rear portion (14) of the internal terminal (5, Fig 1), receiving a rear portion of the internal terminal (5) in the covering wall part (outside wall portions of 12). With respect to claim 20, Sato discloses a method wherein the external terminal (1) includes a barrel portion (8) positioned rearward of the covering wall part (outside wall portions) wherein the barrel portion (3) includes an open upper face (u shape of 6a) to receive a net braid shield (22) of the shielded electric wire (2) and includes bendable portions (12 & 13) to cover the braided shield (22) of the shielded electrical cable (2, Fig 3) receiving the net braid shield (22) of the shielded cable (2) in the barrel portion (8, Fig 5) and bending the barrel portion (8) around the net braid shield (22) to cover the braided shield (22). With respect to claim 21, Sato discloses a method wherein the external terminal (1) further includes a lance (6) on a lower face of the external terminal (1) and extending toward a front portion of the external terminal (1) and a dielectric (4) further including a hooking groove (Fig 4) on a lower face of the dielectric (4) and extending from a rearward to a forward direction of the dielectric (4) to receive the lance (6) and secure the dielectric (4) and the external terminal (1) together (Fig 4), further comprising receiving the lance (6) in the hooking groove (Fig 4) thereby securing the dielectric (4) and the external terminal (1) together (Fig 4).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (Pat Num 6,210, 223) in view of Seko et al (Pat Num 5,951,336, herein referred to as Seko). Sato discloses a shielded connector assembly (Figs 1-11) for a female shielded terminal connectable to a shielded cable (Col 1, lines 5-10) as disclosed above with respect to claims 1 & 12 above. Specifically, with respect to claim 2, Sato discloses at least one elastic connecting piece (3) comprising a pair of connecting pieces (17 & 18) provided on the internal terminal (5). With respect to claim 14, Sato discloses at least one elastic connecting piece (14) comprising a pair of connecting pieces (left 17 & 18) provided on the internal terminal (5).

However, Sato doesn't necessarily disclose the connecting piece being configured in an L-shape extending from respective facing wall of the internal terminal to a wall of the internal terminal provided between the facing walls, and each connecting piece of the pair of connecting pieces being cantilevered from the internal terminal so that the connecting pieces can elastically sandwich the corresponding male terminal therebetween (claim 2 & 14), nor the internal terminal having a slit between the

Seko teaches a female terminal assembly (Figs 1-9) that overcomes the difficulties of the prior art and aims to provide a terminal fitting wherein entry of foreign matter into the bending space is prevented (Col 1, lines 25-27). Specifically, with respect to claim 2, Seko teaches an internal terminal (A) comprising a connecting piece (12) being configured in an L-shape (Fig 3) extending from respective facing wall (at 14) of the internal terminal (A) to a wall of the internal terminal (A) provided between the facing walls (at 14), and each connecting piece (12) of the pair of connecting pieces (12) being cantilevered from the internal terminal (A) so that the connecting pieces (12) can elastically sandwich the corresponding male terminal therebetween (Col 2, lines 48-52). With respect to claim 3, Seko teaches an internal terminal (A) further comprising a slit (13) between the connecting pieces (12) and each said connecting piece (12) of the pair of connecting pieces (12) includes a bent portion (Fig 5) and extend toward each other (Fig 5). With respect to claim 14, Seko teaches method wherein an internal terminal (A) comprising a connecting piece (12) being configured in an L-shape (Fig 3) extending from respective facing wall (at 14) of the internal terminal (A) to a wall of the internal terminal (A) provided between the facing walls (at 14), and each connecting piece (12) of the pair of connecting pieces (12) being cantilevered from the internal terminal (A) so that the connecting pieces (12) can elastically sandwich the corresponding male terminal therebetween (Col 2, lines 48-52).

With respect to claims 2-3 and 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the



Seko because Seko teaches that such a configuration overcomes the difficulties of the prior art and aims to provide a terminal fitting wherein entry of foreign matter into the bending space is prevented (Col 1, lines 25-27).

5. Claims 6 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (Pat Num 6,210, 223) in view of Yamaguchi (Pat Num 5,975,950). Sato discloses a shielded connector assembly (Figs 1-11) for a female shielded terminal connectable to a shielded cable (Col 1, lines 5-10) as applied to claims 1, 4, 12, and 15, above.

However, Sato doesn't necessarily disclose the internal terminal comprising a pair of thrusting pieces, projecting from opposite sides and the dielectric having pressure grooves to receive the thrusting pieces (claims 6 & 16).

Yamaguchi teaches a shield connector assembly (Figs 1-5) wherein the inner conductor is connected to the inner terminal and the outer terminal is connected to the outer conductor to obtain superior shielding effects (Col 2, lines 3-7). Specifically, with respect to claims 6 & 17, Yamaguchi teaches an internal terminal (3) comprising a pair of thrusting pieces (shown at 3' in Fig 1), projecting from opposite sides and the dielectric (7') having pressure grooves (recess that receives 3') to receive the thrusting pieces (at 3').

With respect to claims 6 & 16, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the internal terminal of Sato to comprise the internal terminal configuration as taught by Yamaguchi

Because Seko teaches that such a configuration overcomes the difficulties of the

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (Pat Num 6,210, 223) in view of Sato et al (Pat Num 5,171,166, herein referred to as Sato). Sato discloses a shielded connector assembly (Figs 1-5) for a female shielded terminal connectable to a shielded cable (Col 1, lines 5-10). Specifically, with respect to claim 22, Sato discloses a method of assembling a female shielded terminal (Fig 1) comprising providing an internal terminal (5) connectable to an inner conductor (24) of a shielded electrical wire (2), wherein the internal terminal (5) includes at least one elastic connecting piece (14) to contact a corresponding male terminal (C), mounting a dielectric (4) on an outer periphery of the internal terminal (5), providing an external terminal (1) on the dielectric (4) and the internal terminal (5), connecting the inner conductor (24) of the shielded wire (2) to the internal terminal (5), mounting the external terminal (1) on the dielectric (4) and the internal terminal (5), after mounting the external terminal (1) on the dielectric (4) and the internal terminal (5), connecting the external terminal (1) to the outer conductor (22) of the shielded electrical cable (2).

However, Sato doesn't necessarily disclose simultaneously connecting the inner conductor of the shielded cable to the internal terminal and connecting the external terminal to the outer conductor of the shielded electric wire (claim 22).

Sato teaches an electrical connector (Figs 1-10) comprising a female terminal and a method of terminating the female terminal to a shielded cable having a good shielding effect and simple automation (Col 2, lines 15-17). Specifically, with respect to Sato et al, Sato discloses a female shielded terminal (10, Figs 9, 10) to a shielded

conductor (55) of the shielded cable (Fig 9) and the connecting of the external terminal (50) is done by simultaneously providing crimping dies (61 & 63) which compress the inner arms (56) of the inner terminal (at 57) and the outer arms (43 & 47) of the outer terminal (50, Col 2, lines 29-41).

With respect to claim 22, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the method of terminating the shielded cable of Sato to comprise the method process as taught by Sato because Sato teaches that such a method of terminating a shielded cable provides good shielding effects and simplifies the difficult automation of the prior art, which uses two separate steps to terminate the inner and outer conductors, by terminating the inner and outer conductors by providing a single crimping step configuration (Col 1 & 2, lines 20-27 & 15-17).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


8. Based on the argument present with respect to the Aoyama reference, this action is non final.

**Communication**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (703) 306-9061. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
WHM III  
May 5, 2003